UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/702,104	11/04/2003	Gregory B. Altshuler	105090-0129	6794

21125 7590 09/14/2007

NUTTER MCCLENNEN & FISH LLP
WORLD TRADE CENTER WEST
155 SEAPORT BOULEVARD
BOSTON, MA 02210-2604

EXAMINER	
JOHNSON III, HENRY M	

ART UNIT	PAPER NUMBER
3739	

NOTIFICATION DATE	DELIVERY MODE
09/14/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docket@nutter.com

Office Action Summary	Application No.	Applicant(s)	
	10/702,104	ALTSHULER ET AL.	
	Examiner	Art Unit	
	Henry M. Johnson, III	3739	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 July 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4-8,10-17,19,20,22,23 and 56-73* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *15 and 73* is/are allowed.

6)☐ Claim(s) *1,2,4-8,10-14,16,17,19,20,22 and 56-72* is/are rejected.

7)☐ Claim(s) *23* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *07 April 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner..

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Response to Arguments

Applicant's arguments filed July 30, 2007 have been fully considered and are persuasive with regard to Narcisco et al. However, a review of previous arguments in light of KSR [127 S Ct. at 1739] finds those previous arguments not persuasive and rejections based on Lerner et al. in view of Altshuler et al. are restated herein.

See KSR [127 S Ct. at 1739] ('The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.')"

If a person of ordinary skill can implement a predictable variation, §103 likely bars its patentability. For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill. Sakraida and Anderson's-Black Rock are illustrative. A court must ask whether the improvement is more than the predictable use of prior art elements according to their established functions (KSR [127 S Ct. at 1739]).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out

the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 2, 4-8, 10-14, 19-21 and 56-72 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,300,097 to Lerner et al. in view of U.S. Patent 6,273,884 to Altshuler et al. Lerner et al. teach a handheld device for treating a skin condition with optical fiber protuberances for contacting the skin and an optical source (Fig. 2, # 40) positioned to provide radiation via the fiber optics. The optical fibers are interpreted as forming a brush. The fibers are capable of providing force to the skin. The optical source is a tungsten or mercury discharge lamp (Col. 2, lines 40-41) mounted in the applicator head (Fig. 2) and inherently must have a socket for mounting, the socket inherently drawing heat away from the source into the head and handle. Lerner et al. disclose two different wavelengths (Fig. 4B, switch for UVA or UVB) and the source is controlled by a timer with no disclosed pulsing, making the radiation continuous. Lerner et al. do not teach an array or the a total internal reflecting mechanism to allow treatment only when in contact with tissue. Altshuler et al. teach an apparatus for using optical radiation to treat dermatological conditions that includes a light delivery mechanism which normally has total internal reflection so that light or other radiation entering the lens is reflected through the lens, however, when the lens is in contact with the patient's skin, the total internal reflection at the skin-contacting surface is broken due to the change of index of refraction at this surface so that light energy is emitted from the lens into the patient's skin (Col. 16, lines 20-29). Altshuler et al. also discloses the use of multiple diodes as sources for individual optical channels (Col. 15, lines 45-50). The multiple diode sources are interpreted as an semiconductor array. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the internal reflecting mechanism and diode array as taught

by Altshuler et al. in the invention of Lerner et al. to contain the radiation when not in contact with skin as a safety feature as suggested by Altshuler et al.

Regarding claims 6 and 7, Lerner et al. disclose the radiation provided may be from 1-10 mW/cm2 or from 30-1000 mw/cm2 (Col. 2, lines 47-49).

Regarding claim 13, the source is controlled by a timer with no disclosed pulsing, making the radiation continuous.

Regarding claims 19-20, the source is within the handheld unit (Fig. 2).

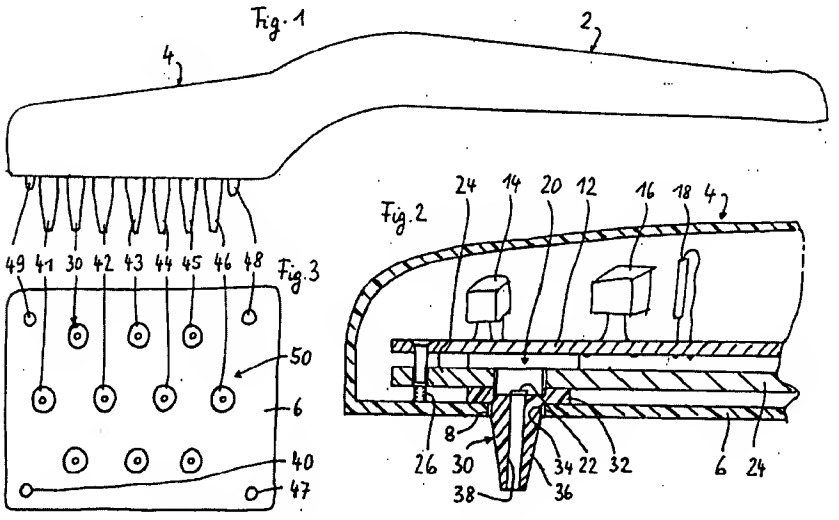
Regarding claims 66 and 67, the selection of the treatment radiation sources is considered an obvious design choice of a skilled artesian.

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,300,097 to Lerner et al. in view of U.S. Patent 6,273,884 to Altshuler et al. as applied to claim 1 above and further in view of U.S. Patent 6,572,637 to Yamazaki et al. Lerner et al. and Altshuler et al. are discussed above, but do not teach a contact detection means. Yamazaki et al. disclose a handheld laser skin treatment device with a laser diode projecting radiation through a cylindrical adjuster that includes a microswitch responsive to adjuster's touching the skin for making the electric power supply to turn on, and responsive to adjuster's leaving the skin for making the electric power supply to turn off (Col. 3, lines 24-27). It would have been obvious to one skilled in the art to include the contact detector as taught by Yamazaki et al. in the invention of Lerner et al. in view of Altshuler et al. as an additional safety against spurious radiation. U.S. Patent 5,133,102 to Sakuma discloses an alternative contact sensor further substantiating the obviousness of such detection in the art.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,300,097 to Lerner et al. in view of U.S. Patent 6,273,884 to Altshuler et al. as applied to claim 1 above and further in view of U.S. Patent 5,445,608 to Chen et al. Lerner et al. and Altshuler

et al. are discussed above, but do not teach a means for application of a treatment agent. Chen et al. teach a device that provides for the delivery of an agent to the treatment site concurrent with radiation (Fig. 16A). It would have been obvious to one skilled in the art to use the agent delivery as taught by Chen in the invention of Lerner et al. in view of Altshuler et al. as the use photosensitizers are well known to a skilled artesian as would be the various methodologies for delivery of a photosensitizer; i.e. systemic, direct, etc.

Claims 1, 2, 4, 5, 8, 10-14, 19, 20, 22 and 56-72 are rejected under 35 U.S.C. 103(a) as being unpatentable over German Patent G 91 02 407.2 to Mink in view of U.S. Patent 6,273,884 to Altshuler et al. Mink discloses a hairbrush for delivery of optical radiation via light guides, each guide having a laser diode as its source (Fig. 1, # 20). The multiple diodes are an array. A cooling radiator (Fig. 2, # 24) acts as a heat sink for the radiation sources. The light conductors are interpreted as bristles of a brush and are capable of providing a compressive force during use. Mink does not teach total internal reflection. Altshuler et al. teach total internal reflection. as discussed above. It would have been obvious to one skilled in the art to use total internal reflection as taught by Altshuler et al. in the invention of Mink as a safety precaution to prevent stray radiation from reaching an unintended target.



Regarding claims 12, 59, 60, 66 and 67, laser diodes are well known in the art to be available in a wide range of wavelengths and intensities. It would have been obvious to one skilled in the art to select one or more wavelengths and/or intensities as appropriate for the desired treatment.

Regarding claim 13, Mink is silent regarding the operation of the diodes, however, a skilled artesian would select continuous or pulsed mode as is well known in the art.

Regarding claims 56, 62 and 69, the reflection of radiation is an inherent property of the total internal reflection concept.

Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over German Patent G 91 02 407.2 to Mink in view of U.S. Patent 6,273,884 to Altshuler et al. as applied to claim 1 above and further in view of U.S. Patent 5,300,097 to Lerner et al. Mink and Altshuler et al. are discussed above, but do not teach specific intensity. Lerner et al. disclose the radiation provided may be from 1-10 mW/cm2 or from 30-1000 mw/cm2 (Col. 2, lines 47-49). It would have been obvious to one skilled in the art to use the intensities as taught by Lerner et al. in the invention of Mink in view of Altshuler et al. as the selection of the treatment intensities is based on the intended treatment and a skilled artesian would select the power as appropriate.

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over German Patent G 91 02 407.2 to Mink in view of U.S. Patent 6,273,884 to Altshuler et al. as applied to claim 1 above and further in view of U.S. Patent 6,572,637 to Yamazaki et al. Mink and Altshuler et al. are discussed above, but do not teach a contact detection means. Yamazaki et al. disclose a handheld laser skin treatment device with a laser diode projecting radiation through a cylindrical adjuster that includes a microswitch responsive to adjuster's touching the skin for making the electric power supply to turn on, and responsive to adjuster's leaving the skin for making the electric power supply to turn off (Col. 3, lines 24-27). It would have been obvious to one skilled

in the art to include the contact detector as taught by Yamazaki et al. in the invention of Mink in view of Altshuler et al. as an additional safety against spurious radiation. U.S. Patent 5,133,102 to Sakuma discloses an alternative contact sensor further substantiating the obviousness of such detection in the art.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over German Patent G 91 02 407.2 to Mink in view of U.S. Patent 6,273,884 to Altshuler et al. as applied to claim 1 above and further in view of U.S. Patent 5,445,608 to Chen et al. Chen et al. teach a device that provides for the delivery of an agent to the treatment site concurrent with radiation (Fig. 16A). It would have been obvious to one skilled in the art to use the agent delivery as taught by Chen in the invention of Mink in view of Altshuler et al. as the use photosensitizers are well known to a skilled artesian as would be the various methodologies for delivery of a photosensitizer; i.e. systemic, direct, etc.

Allowable Subject Matter

Claims 15 and 73 are allowed.

Claim 23 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Henry M. Johnson, III whose telephone number is (571) 272-4768. The examiner can normally be reached on Monday through Friday from 6:00 AM to 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda C. Dvorak can be reached on (571) 272-4764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Henry M. Johnson, III
Primary Examiner
Art Unit 3739